

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended) A system for reading a magnetic medium having several tracks of data which can be read in parallel, and comprising a detection device having at least as many detectors as there are tracks, making it possible to read simultaneously and at regular intervals a sample of data on each track, said detection device having a parallel/ series shift register receiving in parallel the samples of data read by the detectors at each read time and retransmitting them in series form, ~~characterized in that it comprises the system comprising:~~

[[•]] a processing circuit configured to receive the ~~(M1) receiving each~~ sample of data ~~(x_i)~~ to be processed from each track, together with ~~the a~~ sample $[(x_{(i-1)})]$ of data from a first adjacent track and ~~the a~~ sample $[(x_{(i+1)})]$ of data from a second adjacent track, and to calculate a ~~calculating the~~ cross-talk affecting the sample of data to be processed due to the adjacent tracks;

[[•]] an integration circuit ~~(I1) receiving~~ configured to receive and integrate the cross-talk ~~value thus calculated, integrating said values~~ obtained at each read time, ~~then integrating the values obtained at following and at subsequent~~ read times; and

[[•]] a relative track-following control circuit ~~(CR) receiving the~~ configured to receive a result of integration of the integrator circuit (I1) and supplying to supply a track-following control signal for the detection device $[[.]]$, wherein said processing circuit ~~comprising comprises~~ means making it possible to multiply for multiplying the value of the sample to be processed $[[.]]$ $[[.]]$ by +1 when the sample of the first adjacent track is negative and the sample of the second adjacent track is positive, $[[.]]$ $[[.]]$ by -1 when the sample of the first adjacent track is positive and the sample of the second

adjacent track is negative $[[;]]$ or $[[-]]$ by 0 when the samples of the adjacent tracks are of the same sign.

Claim 2 (Currently Amended) The system as claimed in claim 1, ~~characterized in that~~ wherein the data medium is read using a light beam ~~which is transmitted to the~~ detection device after reading the data medium, and ~~in that~~ the relative track-following control circuit (CR) ~~makes it possible~~ is configured to control a device for deflecting the light beam depending on the position of the detection device.

Claim 3 (Currently Amended) The system as claimed in claim 1, ~~characterized in that~~ wherein the detection device comprises a greater number of detectors than there are tracks to read and ~~in that it~~ the detection device further comprises:

$[[-]]$ an absolute position detection circuit configured (CTA) ~~making it possible~~ to identify the track read by each detector of the detection device; and

$[[-]]$ a central control circuit configured to control (CC) ~~controlling~~ the operation of said processing circuit (M1), of said integration circuit, (H) ~~and of~~ said relative track-following control circuit (CR), ~~then of~~ and the absolute position detection circuit.

Claim 4 (Currently Amended) The system as claimed in claim 3, further comprising:

~~characterized in that it comprises~~ means for identifying, in the data read by each detector, one or more track identity data items.

Claim 5 (Currently Amended) The system as claimed in claim 4, wherein
~~characterized in that~~ the tracks of the data medium comprise preamble zones containing
~~said~~ identification data.

Claim 6 (Currently Amended) The system as claimed in claim 5, wherein
~~characterized in that~~ the preamble zones of the various tracks can be read simultaneously.

Claim 7 (Currently Amended) The system as claimed in claim 6, ~~characterized in~~
~~that~~ wherein the preamble zones have components which are positive or negative
depending on the tracks, and ~~in that~~ a circuit is provided configured ~~makes it possible to~~
detect the tracks with positive continuous components and those with negative
continuous components.

Claim 8 (Currently Amended) The system as claimed in claim 7, ~~characterized in~~
~~that~~ wherein the tracks of the recording medium are distributed in alternating groups of
positive and negative components.

Claim 9 (Currently Amended) The system as claimed in claim 8, wherein
~~characterized in that it comprises~~ groups of four tracks of positive components which
alternate with groups of four tracks of negative components comprise ~~and in that is~~
~~comprises~~:

[[-]] a first summation circuit ~~(S1) adding~~ configured to add the signs of the
samples detected by a first group of four detectors ~~(b0 to b3)~~ and the inverse of the signs
detected by a second group of four detectors ~~(b4 to b7)~~;

[[-]] a second addition circuit (S2) ~~adding~~ configured to add the signs of the samples detected by the first two detectors of the first group of detectors and the last two detectors of the second group and the inverse of the signs of the samples detected by the other detectors of these groups; and

[[-]] a table indicating the numbers of the tracks detected by said detectors according to the results of the additions carried out by the addition circuits.

Claim 10 (Currently Amended) A recording medium comprising several tracks recordable in parallel, each one comprising a preamble zone recorded or recordable in parallel, said zones containing data making it possible to locate the tracks one with respect to the others, wherein ~~characterized in that~~ the preamble zones contain data with nonzero continuous components, the tracks being distributed in groups of tracks containing data with positive continuous components which alternate with groups of tracks with negative continuous components.